#9228

Installation Instructions
2” Body Lift
1998-2003 S-Series Blazer, 2/4wd, ZR-2

READ AND UNDERSTAND ALL INSTRUCTIONS AND WARNINGS PRIOR TO INSTALLATION OF SYSTEM AND OPERATION OF VEHICLE.

SAFETY WARNING

BDS Suspension Co. recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/reassembly procedures and post installation checks must be known.

PRODUCT SAFETY WARNING

Certain BDS Suspension products are intended to improve off-road performance. Modifying your vehicle for off-road use may result in the vehicle handling differently than a factory equipped vehicle. Extreme care must be used to prevent loss of control or vehicle rollover. Failure to drive your modified vehicle safely may result in serious injury or death. BDS Suspension Co. does not recommend the combined use of suspension lifts, body lifts, or other lifting devices.

You should never operate your modified vehicle under the influence of alcohol or drugs. Always drive your modified vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Always wear your seat belt.

PRE-INSTALLATION NOTES

1. Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/reassembly procedures of OE and related components.
2. Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.
3. Larger rim and tire combinations may increase leverage on suspension, steering, and related components. When selecting combinations larger than OE, consider the additional stress you could be inducing on the OE and related components.
4. Secure and properly block vehicle prior to installation of BDS Suspension components. Always wear safety glasses when using power tools.
5. BDS Suspension Co. body lifts are designed to be used on vehicles in good operating condition. It is not recommended that body lifts be used on vehicles in poor physical shape. This includes rusted body mounts, damaged or worn frame-to-body mounting brackets, and poor mechanical condition. Perform a visual inspection of the vehicle before beginning installation.

POST-INSTALLATION WARNINGS

1. Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between exhaust and brake lines, fuel lines, fuel tank, floor boards and wiring harness. Check steering gear for clearance. Test and inspect brake system.
2. Perform steering sweep to ensure front brake hoses have adequate slack and do not contact any rotating, mobile or heated members. Inspect rear brake hoses at full extension for adequate slack. Failure to perform hose check/replacement may result in component failure. Longer replacement hoses, if needed can be purchased from a local parts supplier.
3. Perform head light check and adjustment.
4. Re-torque all fasteners after 100 miles. Always inspect fasteners and components during routine servicing.

102 S. Michigan Avenue • Coldwater, MI 49036
517-279-2135 • www.bds-suspension.com

rev. 11/6/2008

PARTS LIST

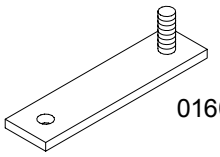
Part #	Qty	Description
3296	12	2" x 3" Body Lift Block
2296	4	2" x 2" Body Lift Block
234	1	Bolt Pack
01642	1	Ground Strap Relocation Bracket
01602	1	Ground Strap Relocation Bracket
01633	4	Fan Shroud Spacer Tube
01749	1	Rear Bumper Bracket (drv)
01752	1	Rear Bumper Bracket (pass)
01719	1	Lower Fan Shroud Support
400410	1	Fuel Filler Hose 2" x 6"
400406	1	Vent Hose 3/4" x 6"
01720	2	Outside Bumper Bracket
01723	1	Front Oil Filter Bracket
01722	1	Rear Oil Filter Bracket
01731	2	Tow Hook Spacer
01746	2	0.500 x 0.058 x 2.970 Sleeve
099000	6	Zip Tie
241	2	#12 Hose Clamp
244	2	#36 Hose Clamp
342701	1	Loctite

BOLT PACK 234

Qty	Description
12	12mm-1.75 x 140mm bolt class 10.9 clear zinc
12	7/16" USS flat washer clear zinc
2	1-3/4"OD x 1/2"ID s 3/16" thk washer clear zinc
1	1/4"-20 x 3/4" bolt grade 5 clear zinc
2	1/4"-20 prevailing torque nut clear zinc
3	1/4" USS flat washer clear zinc
4	10mm-1.50 x 80mm bolt class 8.8 clear zinc
4	10mm-1.50 x 70mm bolt class 10.9 clear zinc
4	12mm-1.75 prevailing torque nut clear zinc
2	3/8"-16 x 4" bolt grade 5 clear zinc
2	3/8"-16 x 1" bolt grade 5 clear zinc
32	3/8" USS flat washer clear zinc
4	3/8"-16 x 3-1/2" bolt grade 5 clear zinc
8	3/8"-16 prevailing torque nut clear zinc
1	#12 x 3/4" sheet metal screw clear zinc
2	1/2"-13 x 1-1/4" bolt grade 5 clear zinc
2	1/2"-13 prevailing torque nut clear zinc
4	1/2" SAE flat washer clear zinc

TORQUE SPECIFICATIONS

Fastener	Max. Torque (ft-lbs)
1/4”	10
5/16”	17
3/8”	30
7/16”-14	50
7/16”-20	55
1/2”-13	75
1/2” U-Bolt	65-80
9/16”	110
9/16” Grade 8	170
9/16” U-Bolt	75-90
5/8”	150
5/8” U-Bolt	85-110
3/4”	270
10mm	30
12mm	55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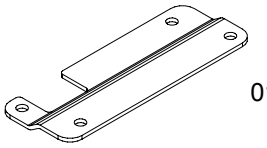
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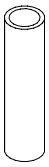
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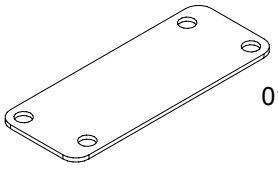
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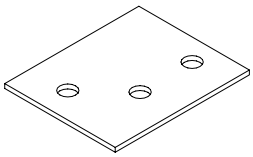
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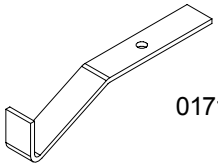
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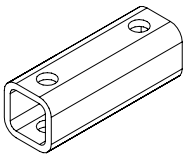
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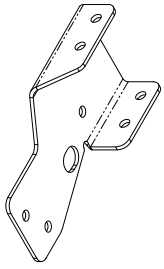
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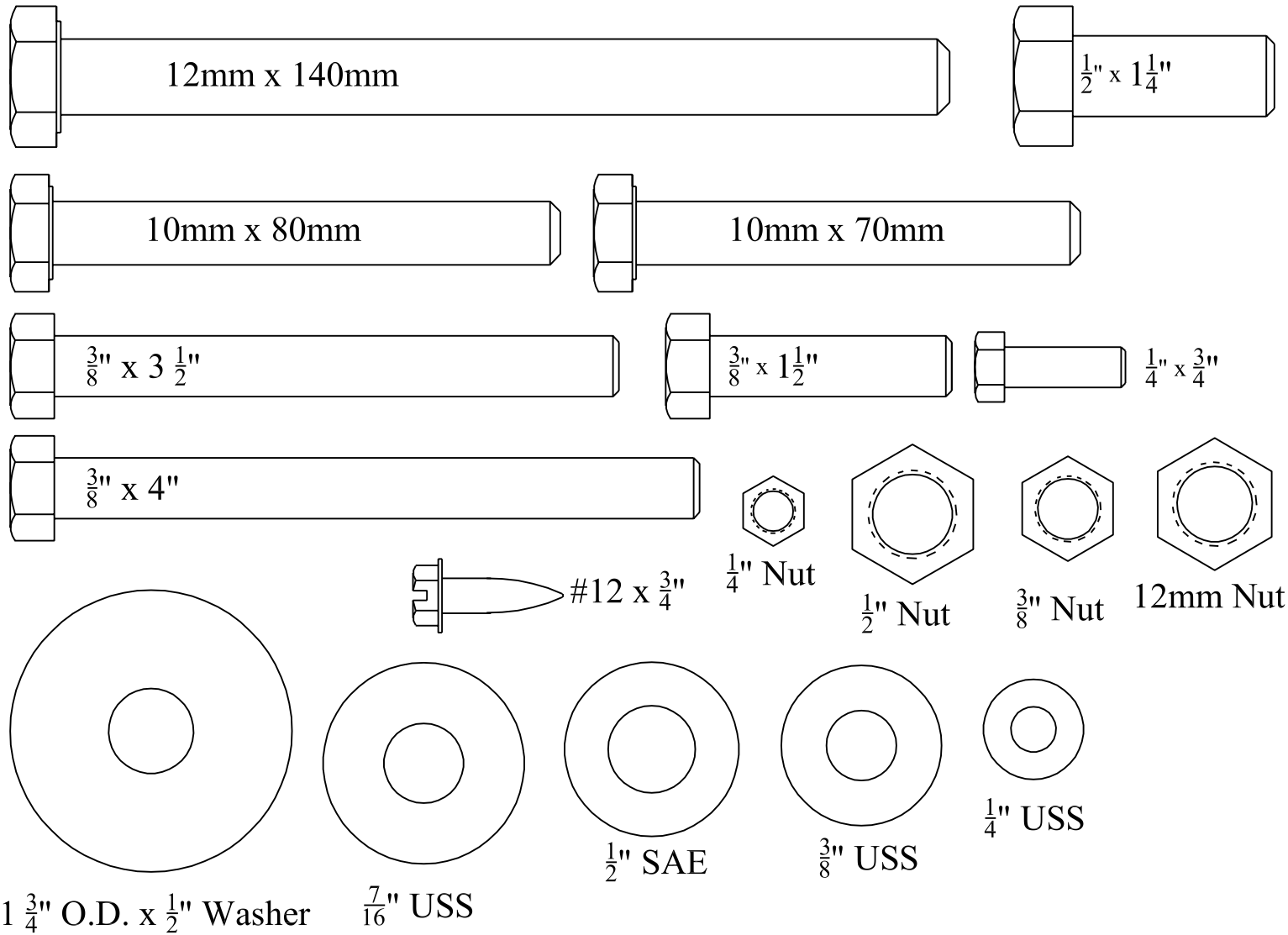
12mm x 140mm
1/2" x 1 1/4"
10mm x 80mm
10mm x 70mm
3/8" x 3 1/2"
3/8" x 1 1/2"
1/4" x 3/4"
3/8" x 4"
#12 x 3/4"
1/4" Nut
1/2" Nut
3/8" Nut
12mm Nut
1 3/4" O.D. x 1/2" Washer
7/16" USS
1/2" SAE
3/8" USS
1/4" USS

INSTALLATION INSTRUCTIONS

1. Park the vehicle on a clean, flat surface and block the wheels for safety. Place automatic transmissions in park and manual transmissions in neutral.
2. Remove the negative battery cable first, then the positive battery cable. If equipped, the Supplemental Restraint System will be deactivated when the battery is disconnected.
3. Measure and record the space between the bumpers and the body for reference during installation of the kit.

FRONT/UNDER HOOD

4. Remove the grill by pulling the ten retaining clips free from the core support. Remove the turn signal lamps from the signal housings. If equipped, remove the two wire harness connectors from the running lights and remove the grill from the vehicle (Fig 1).

FIG. 1

5. Remove the front bumper by removing the four bolts mounting the bumper to the frame horns (Fig 2) and two bolts (one on each side) mounting the bumper to the outside bumper brackets (Fig 3). Remove the bumper from the vehicle.

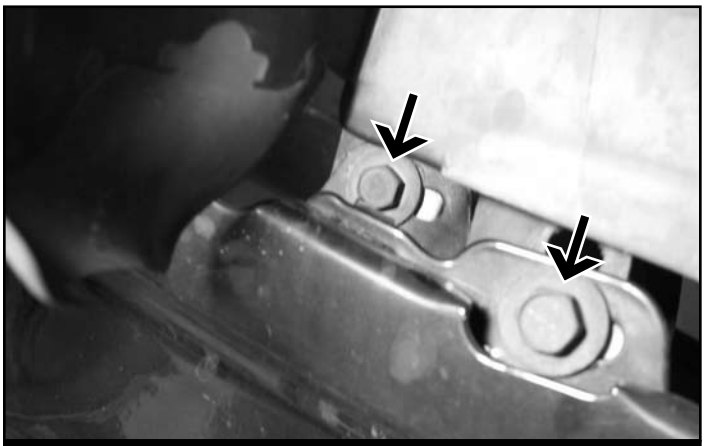

FIG. 2

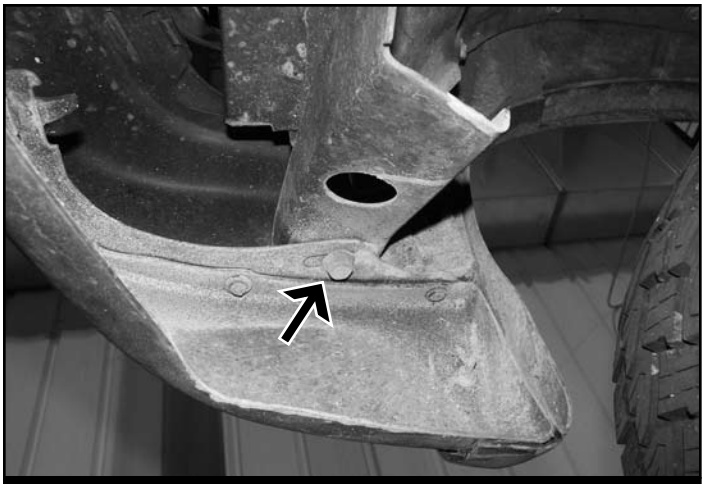

FIG. 3

6. Remove the two bolts mounting each of the outside bumper brackets to the frame and remove the brackets from the vehicle (Fig 4).

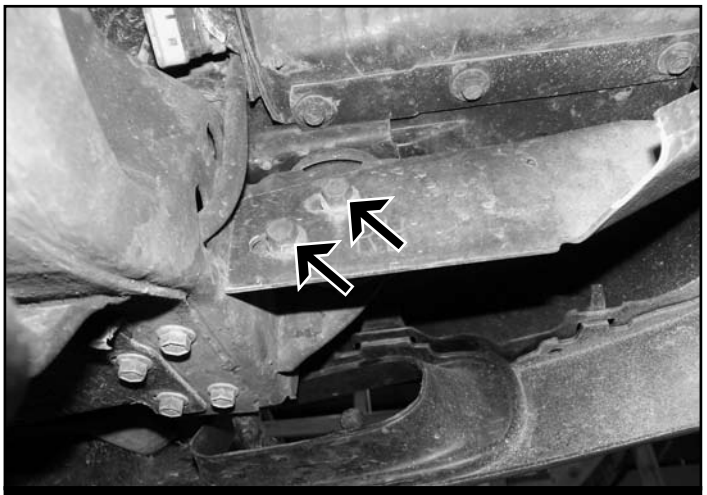

FIG. 4

7. If equipped, remove the two bolts mounting each of the tow hooks in the frame rails and remove the tow hooks from the vehicle (Fig 5).

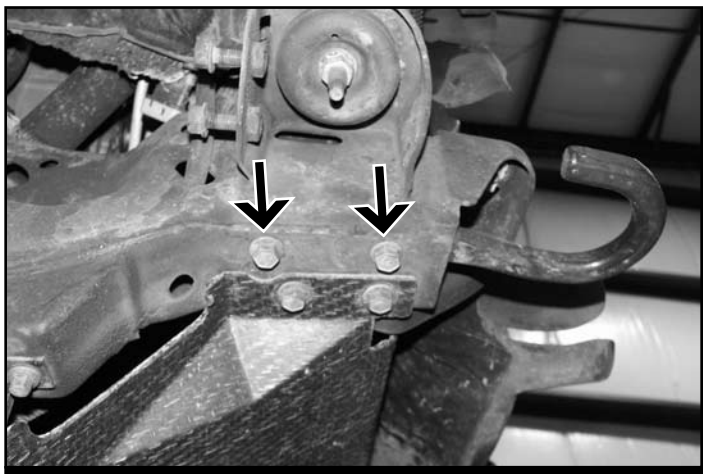

FIG. 5

8. Remove the plastic air scoop (Fig 6) from the core support by carefully releasing the four plastic push in fasteners.

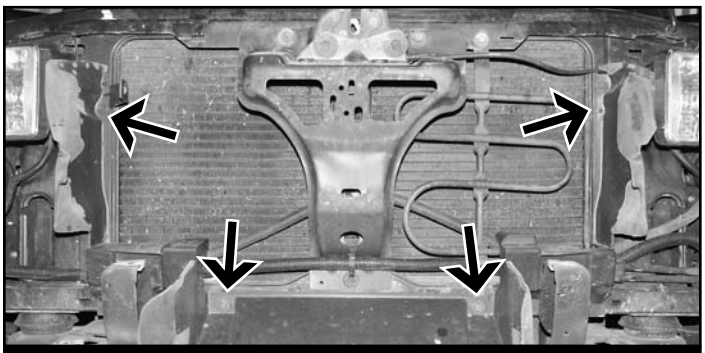

FIG. 6

9. Remove the six bolts and the front skid plate from the vehicle (Fig 7).

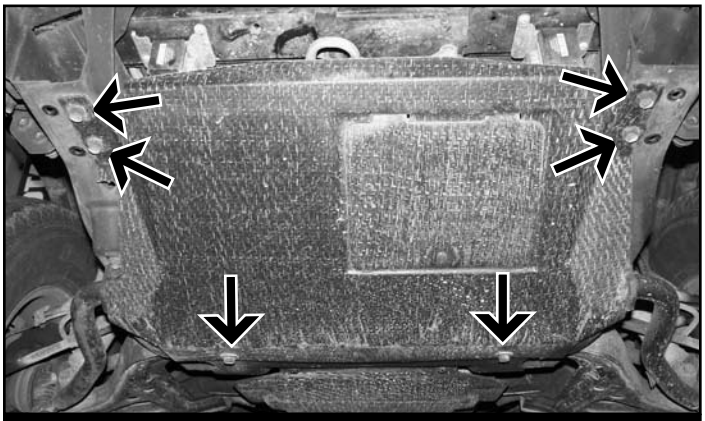

FIG. 7

10. Disconnect the oil filter mounting bracket from the core support by removing the two shoulder bolts (Fig 8).

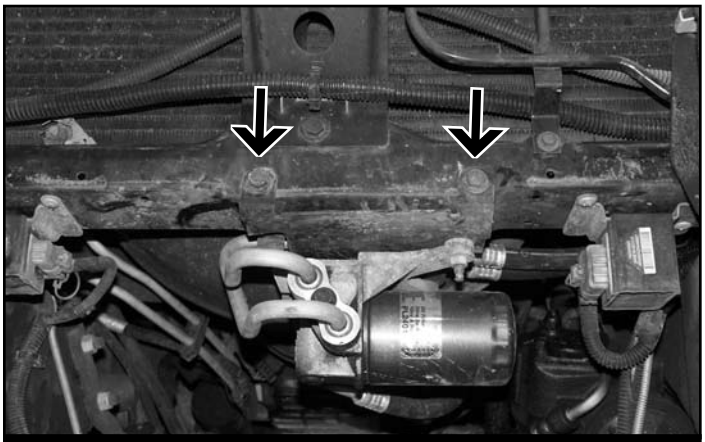

FIG. 8

11. If equipped, remove the AC line from the plastic hose clip on the upper fan shroud (Fig 9).

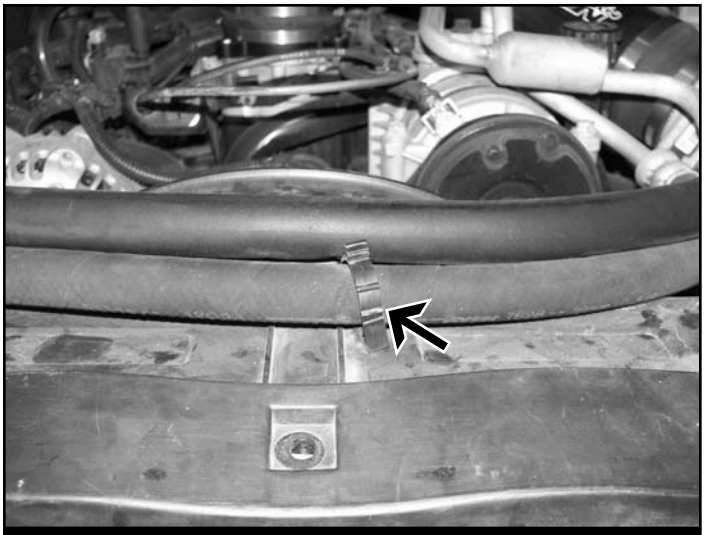

FIG. 9

12. Remove the seven bolts mounting the upper fan shroud to the core support and lower fan shroud (Fig 10, 11). Remove the upper fan shroud from the vehicle.

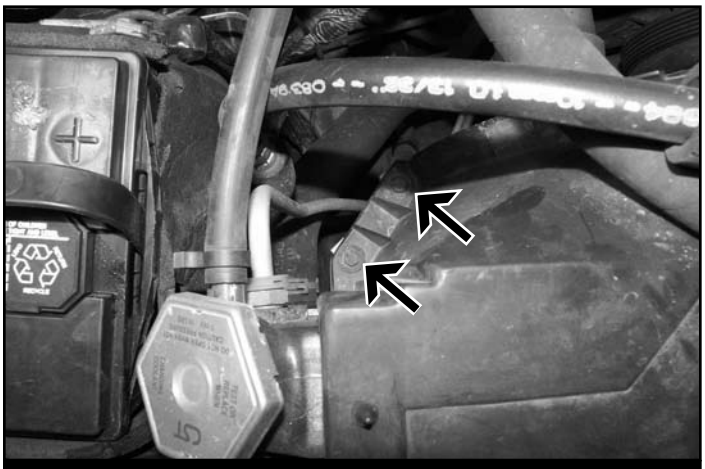

FIG. 10

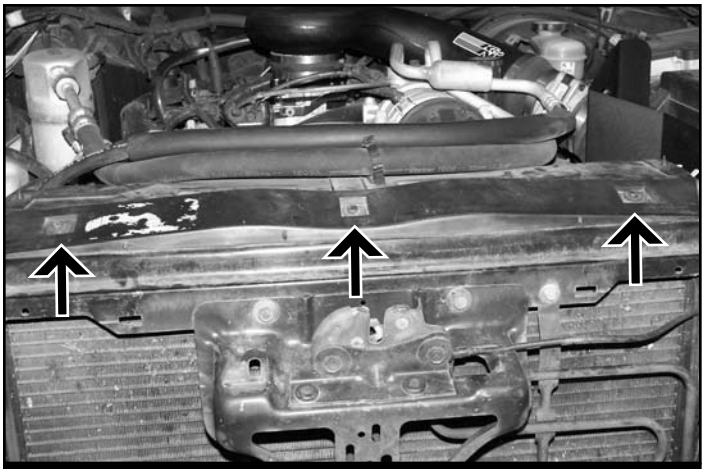

FIG. 11

13. Pull the lower fan shroud free from the lower retaining clips and let it rest on the frame rails. Note: A flat head screw driver may be required to release the lower fan shroud retaining clips.

14. Remove the nut retaining the ground strap at the passenger's side firewall and remove the wire from the stud (Fig 12).

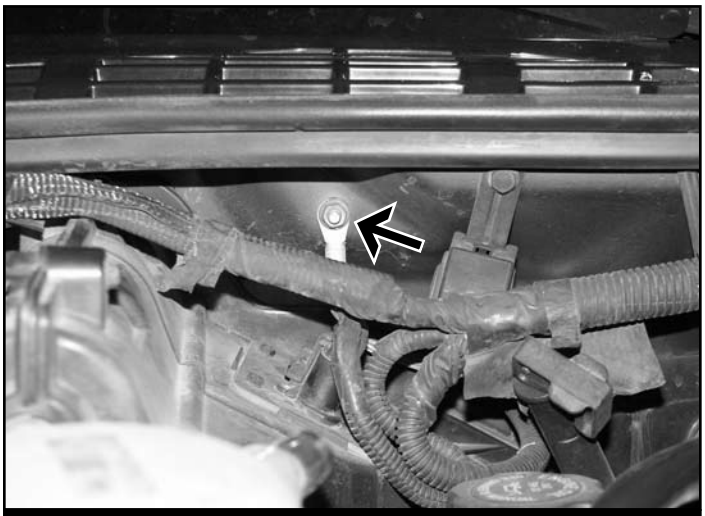

FIG. 12

15. Remove the four screws mounting the air filter housing cover and remove the cover. Remove the intake hose from the throttle body and allow the intake hose assembly to rest on the engine during lifting.
16. 4wd only: Remove the battery retaining clamp and remove the battery from the vehicle (Fig 13).

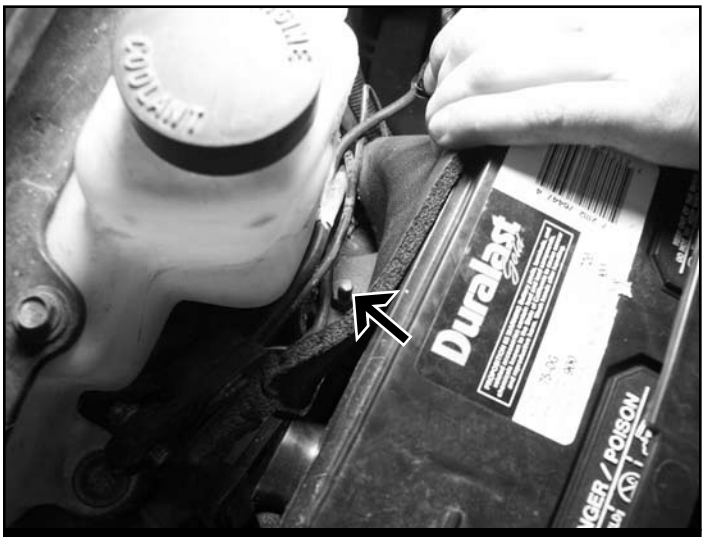

FIG. 13

17. 4wd only: Remove the two bolts mounting the battery tray to the core support and remove the battery tray from the vehicle (Fig 14).

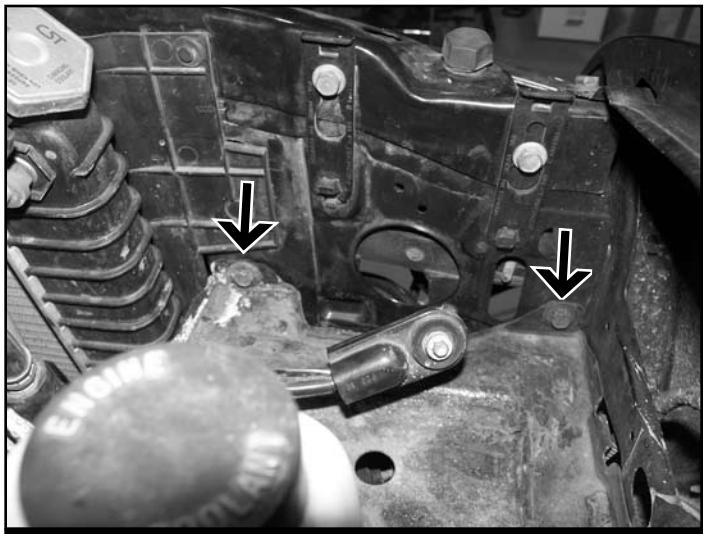

FIG. 14

18. 4wd only: Remove the two sheet metal screws and bracket mounting the positive battery cable terminal box to the core support (Fig 15).

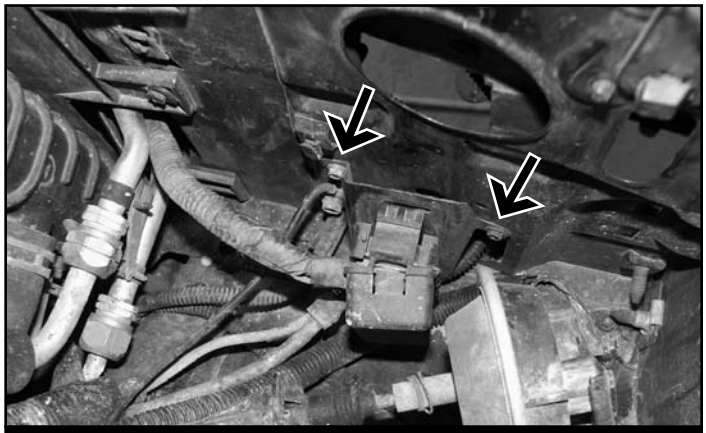

FIG. 15

19. 4wd only: Remove the two bolts mounting the front axle actuator to the passenger's side inner fender. The bolts are accessed from inside the wheel well (Fig 15, 16).

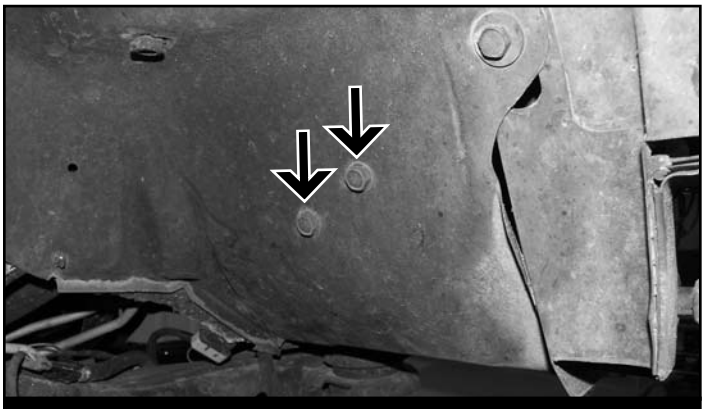

FIG. 16

UNDER BODY/FRAME RAILS

20. Remove the bolt mounting the ground strap(s) to the passenger's side frame rail (Fig 17).

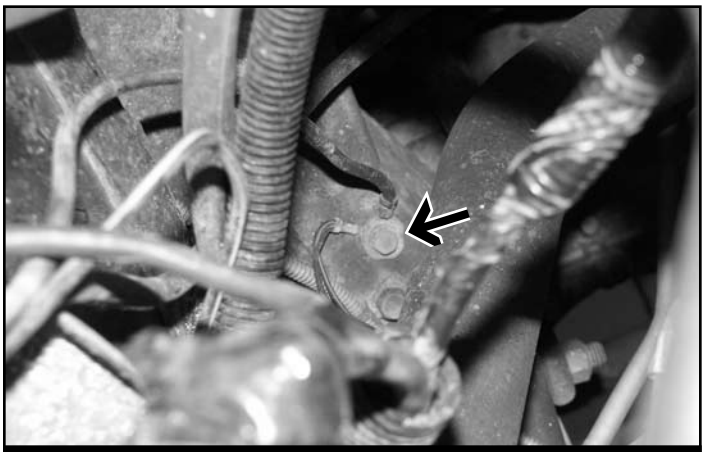

FIG. 17

21. Remove the wire harness from the plastic clip on the passenger's side frame rail (Fig 18).

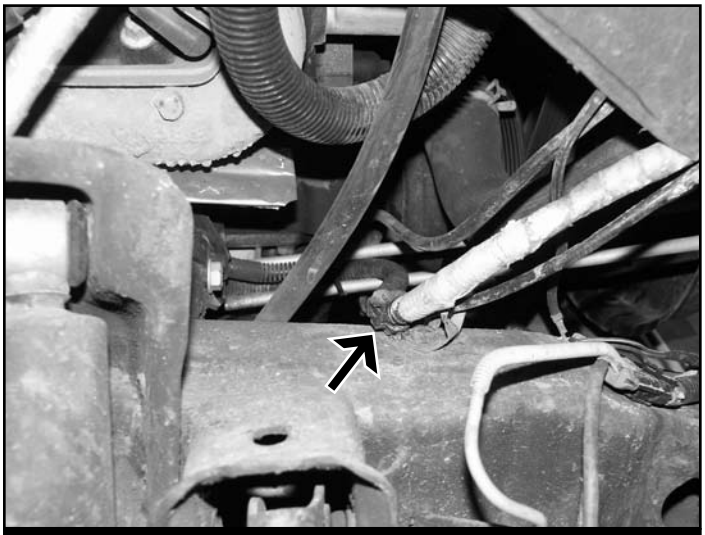

FIG. 18

22. Remove the bolt/clip mounting the oil cooler lines to the passenger's side of the engine oil pan (Fig 19). Remove the lines from the pan.

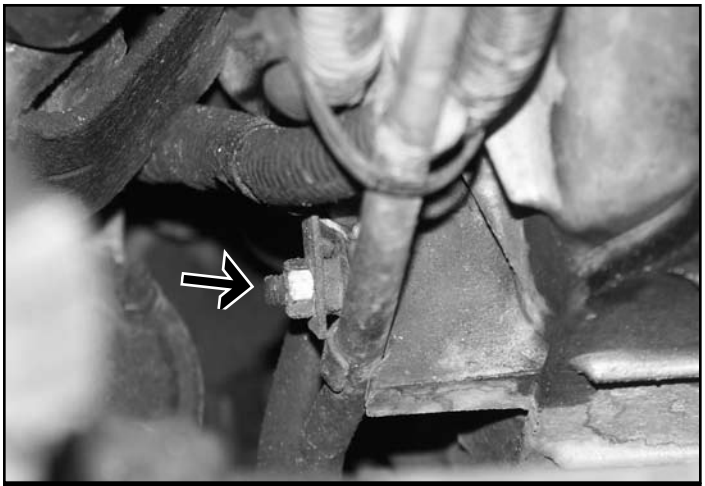

FIG. 19

23. Remove the bolt mounting the brake lines to the driver's side shock mount (Fig 20).

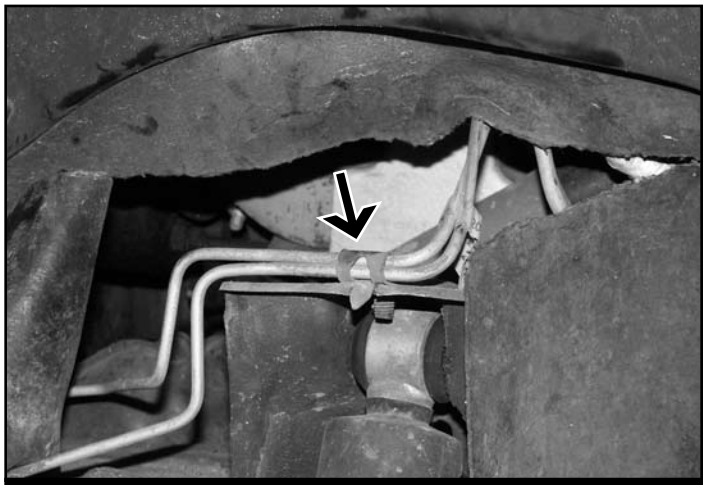

FIG. 20

24. Remove the brake line from the plastic retaining clip on the driver's side frame rail (Fig 21).

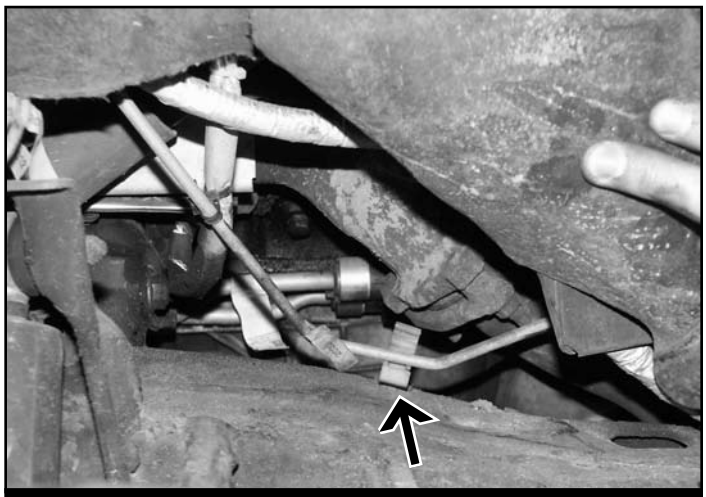

FIG. 21

25. Remove the wire harness from the plastic retaining clip on the driver's side frame rail (Fig 22).

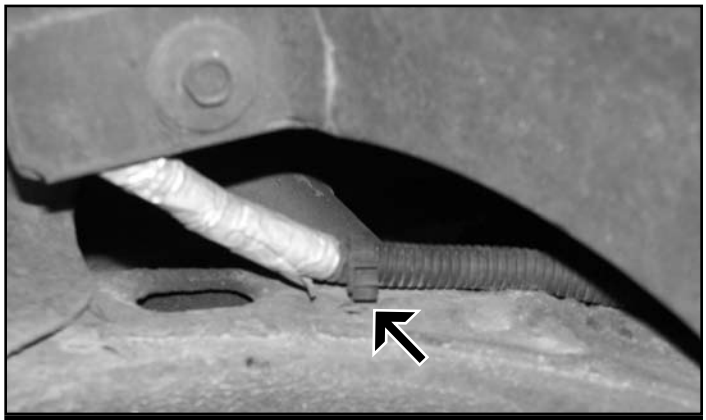

FIG. 22

REAR/REAR BUMPER

26. Remove the fuel filler cap to access the three screws mounting the filler neck to the plastic body shroud (Fig 23). Remove the three screws to allow the filler neck to fall through the shroud while lifting the bed.

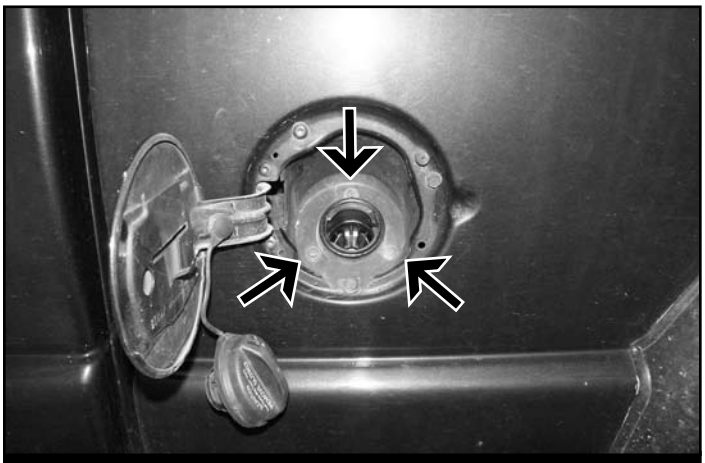

FIG. 23

28. Disconnect the main license plate light wire harness connector at the frame (Fig 24).

FIG. 24

29. Remove the 4 bolts (or 5 with some hitch options) mounting each of the rear bumper brackets to the frame. Remove the bumper from the vehicle.

LIFT

30. Do a thorough visual check of all wires, hoses, etc to ensure that everything has adequate slack for 2" of lift.
31. Loosen but do not remove all of the body mount bolts. There are five body mounts on each side of the vehicle.
32. Remove the passenger's side mounting bolts. Using a hydraulic jack and block of wood, slowly lift the passenger's side of the cab high enough to place the 2" tall x 3" wide spacers on the frame body mounts. While lifting, continue to watch for hoses, wires, etc that may be overextending.
33. Install 12mm x 140mm bolts and 7/16" USS washer in conjunction with the OE washer and bushings in the main cab mounts. Install a 12mm x 140mm bolt with large ½" washer in the front core support mount from the top down and fasten with the OE bushing, washer, and nut (Fig 25). Leave all hardware loose at this time.

FIG. 25

34. Repeat lift procedure on driver's side of the vehicle.

Note: 4-door models have two more body mounts than 2-door models. If installing on 2-door, 2 blocks and bolts will be extra.

35. If necessary, adjust the body so it is square on the frame and tighten all mounting bolts securely. Use Loctite® on all mounting hardware.

REAR/REAR BUMPER

44. Remove the license plate from the rear bumper.
45. Remove the top plastic cover from the rear bumper by squeezing the plastic clips and pushing them out of the holes (Fig 26).

FIG. 26

46. Remove the eight bolts and the bumper brackets from the rear bumper (Fig 27).

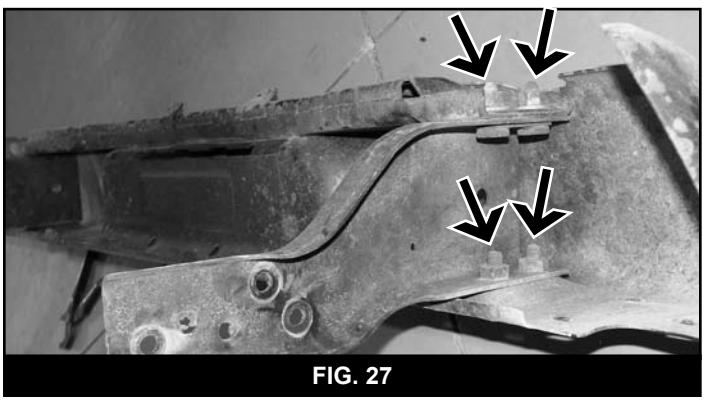

FIG. 27

47. Install the new rear bumper brackets with the OE hardware and four 12mm nuts with four 7/16” USS washers to replace the welded nuts on the upper OE bracket mounts. Do not tighten at this time.

47b. The bottom corner of the rear frame horns must be trimmed to make clearance for the relocated bumper. Measure from the back edge of the frame 1-5/8" and mark. Measure up from the bottom of the frame 1-1/2" and mark. Cut out the marked off square section of the frame with a saw or cut-off wheel. Paint exposed metal to prevent rust.

48. Install the bumper on the vehicle by aligning the original mounting holes with the corresponding holes in the new brackets. Use a 1/2" x 1-1/4" bolt, nut and 1/2" SAE washers in the rear-most mounting hole. Use the OE hardware in the remaining holes (Fig 28). Do not tighten at this time.

FIG. 28

49. Adjust the bumper-to-body distance using the measurements made at the beginning of the installation and tighten all the bumper mounting hardware securely.

50. Install the plastic bumper cover on the top of the bumper by aligning the clip holes and pushing them into place. Install the license plate lights.

51. Install the license plate with the original hardware.

52. **Remove the bolt retaining the fuel filler ground wire to the frame. Loosen the hose clamps retaining the fuel filler and vent hoses to the fuel tank. Remove the filler neck from the vehicle.**

53. **Outside of the vehicle, the steel filler tube must be cut so it can be extended. Cut the main filler tube and vent tube half way between the body (end) and the first bend. Remove all metal shavings from the tubes.**

54. Reconnect the two metal filler tube halves with the provided rubber filler and vent tube extensions and hose clamps. Leave clamps loose.

55. **Install the filler neck assembly in the vehicle and attach the filler and vent hose to the fuel tank with the provided hose clamps. Adjust the rubber extensions and tighten the hose clamp securely.**

56. Attach the filler neck to the body shroud with the OE screws. Attach the ground wire to the frame with the OE bolt. Install the filler cap. Tighten all hose clamps securely.

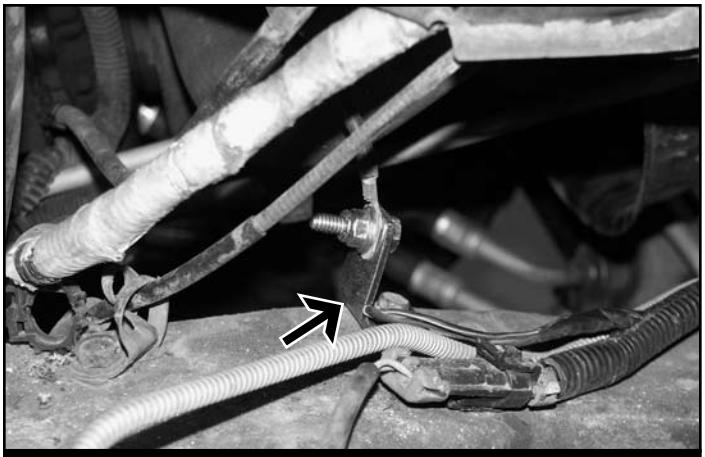
FIG. 29

UNDER BODY/FRAME RAILS

57. Install the short end of the provided L-shaped ground strap relocation to the passenger’s side frame rail with the OE bolt (Fig 29). Attach the ground strap(s) to the bracket with a ¼” x ¾” bolt, nut and two ¼” SAE washers.

58. Check all brake lines, wire harnesses, etc. to see that they are not rubbing on any abrasive surfaces. Use provided zip ties to secure lines were needed.

FRONT/UNDER HOOD

59. 4wd only: Measure and mark ½” to the inside of the positive battery cable terminal box bracket mounting holes on the passenger’s side core support (Fig 15). Drill a 1/8” hole at each of the marks.

60. 4wd only: Mount the terminal box bracket to the new holes with the OE mounting screws.

61. 4wd only: Measure and mark ½” to the inside of the axle actuator mounting holes on the inner fender (Fig 16). Drill a 3/8” hole at each mark.

62. 4wd only: Mount the axle actuator to the inner fender using the new holes and the OE mounting bolts.

63. 4wd only: Install the battery tray to the original mounting holes using the original mounting bolts.

64. 4wd only: Install the battery on the battery tray and secure with the OE retaining bracket. Do not attach the battery cables at this time.

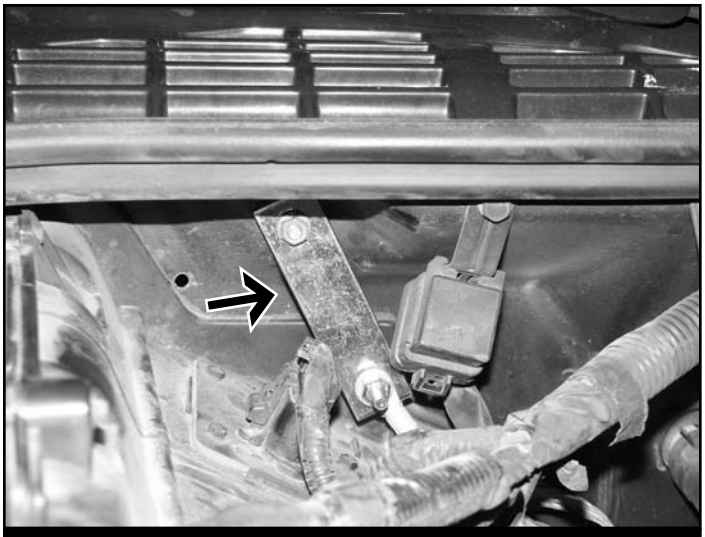
FIG. 30

65. Install the provided ground strap extension on the ground stud at the passenger's side firewall and retain with the OE nut. Attach the ground strap to the bracket stud with a ¼" nut and ¼" SAE washer (Fig 30).
66. Remove the four nut clips from the lower radiator fan shroud (Fig 31).

FIG. 31

67. Install the upper fan shroud in the vehicle and attach it to the core support with three OE bolts (Fig 11).
68. Attach the lower fan shroud to the upper fan shroud with four spacers, four 3/8" x 3-1/2" bolts, nuts, and sixteen 3/8" USS washers. The washers mount on both sides of the shroud flange to "sandwich" the plastic (Fig 32).

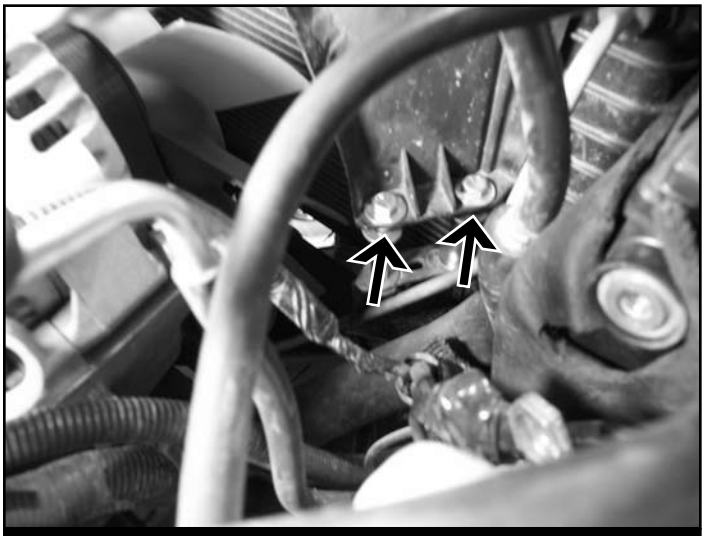

FIG. 32

69. Reattach the air box cover to the air box. Reattach the intake hose to the throttle body.
70. Locate the lower fan shroud bracket in the shroud and against the lower surface of the core support. Using the bracket as a template, mark the mounting hole on the core support. Drill a 1/8" hole at the mark (Fig 33). Mount the shroud bracket to the core support with a #12 x ¾" sheet metal screw.

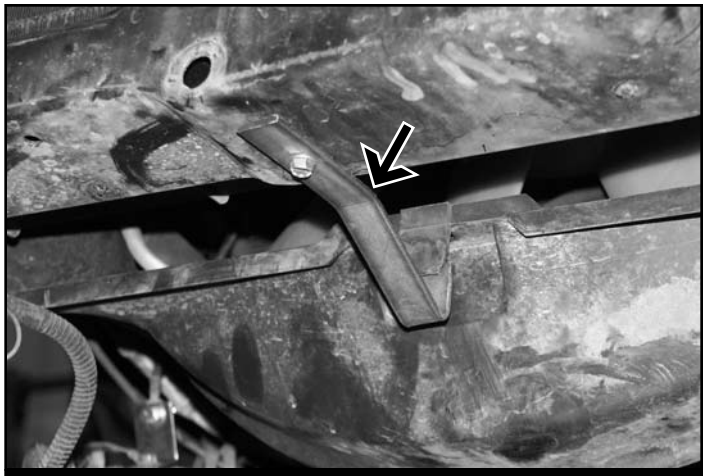

FIG. 33

71. Install the oil filter relocation brackets to the original mounting holes in the core support with the provided 3/8" x 4" bolts, ½" x 2.970" sleeves, nuts and 3/8" USS washers. The front bracket is flat and the rear bracket should bend forward with the notch to the passenger's side of the vehicle fitting over the new radiator shroud bracket (Fig 34). The lower holes will be offset to the driver's side. Leave bolts loose. Note: The rear mounting holes in the core support may need to be drilled out slightly to accept the new 3/8" hardware.

FIG. 34

72. Attach the OE filter bracket to the relocation brackets with the OE shoulder bolts. Tighten the four bolts securely.
73. Install the front plastic air scoop to the core support in the original location using the OE plastic fasteners.
74. Set four 2" x 2" body blocks on the four front bumper mounting points (Fig 35). Set the front bumper up to the mounts and mark where the front valance needs to be trimmed to clear the frame. The valance may not require trimming in some cases.
75. After the bumper is properly trimmed, mount the bumper to the spacers and the frame with 10mm x 80mm bolts and 3/8" USS washer through the bumper, spacers and

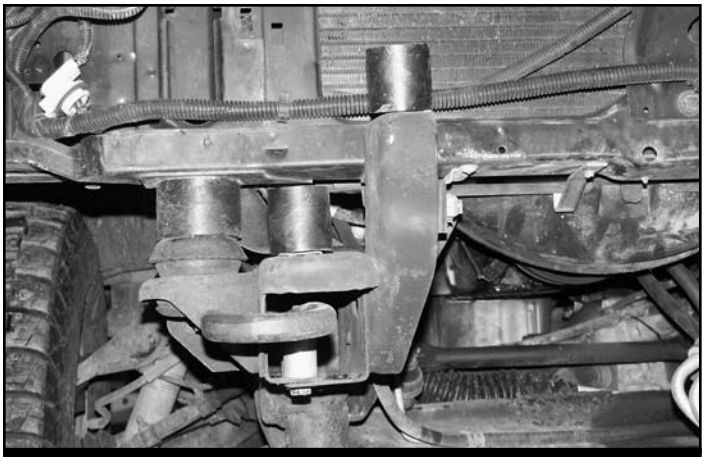

FIG. 35

thread into the original nut tabs on the frame. Leave hardware loose.

76. Install the side bumper brackets to the bumper using the OE bolts. Install the new side bumper relocation bracket to the frame through the lower OE hole. Mount the

FIG. 36

outside bumper bracket to the relocation bracket through the upper-most mounting hole with a 3/8” x 1” bolt, nut, and two 3/8” USS washers (Fig 36).

77. Mark the OE side bracket to drill a hole through to match the middle hole of the relocation bracket and outside OE mounting hole on the frame. Drill a 7/16” hole at the mark.
78. Install the brackets to the frame with the OE bolts in the lower two holes and the 3/8” hardware in the upper holes. Leave hardware loose.
79. Adjust the bumper using the measurements made at the beginning of the installation and tighten all the mounting hardware starting with the four main mounts in front.
80. Install the grill by first reattaching the turn signal and running lights. Align the retain clips in the core support holes and carefully push the grill into place.
81. If equipped, install the tow hook spacer block in the frame rail and line up the holes with the original tow hook mounting holes.
82. Apply Loctite to the threads of four 10mm x 70mm class 10.9 bolts. Insert the tow hook in the frame rail and line up the holes with the spacer and frame. Install the 10mm x 70mm bolts with 3/8” SAE washers through the frame, spacer and into the threaded tow hook mounting holes. Tighten the bolts securely.

FIG. 37

83. Install the front skid plate in the original location with the six OE mounting bolts. Note: In some cases the skid plate may need to be trimmed slightly for oil line clearance as a result of lowering the oil filter location (Fig 37).
84. Check all fasteners for proper torque.
85. Adjust headlights.
86. Check hardware after 500 miles.

ZR-2 Models Only: On some ZR-2 models the steering column angle may be too steep after the body is lifted, resulting in steering bind. After the lift is completed, take the vehicle for a slow test drive and turn the steering wheel through its full range. If any steering bind is detected, follow the instructions below to correct the angle.

1. Remove the negative battery cable, then the positive battery cable. This is necessary to ensure that the air bag does not deploy while working around the steering column.
2. Remove the lower plastic dash panel from under the steering column.
3. Four studs mount the steering column to the underside of the dash. Locate the two vertical studs near the instrument panel and the two horizontal studs near the firewall. Remove the four retaining nuts and lower the steering column to the floor. Do not disconnect any wire harnesses. Do not disconnect the steering column from the steering shaft.
4. The flange holes that mount to the horizontal studs near the firewall need to be elongated for adjustment. Using a hand file or power grinding tool, oblong the holes up to the edge of the mark that was left by the washer.
5. Reattach the steering column to the dash with the OE nuts. Before the hardware is tightened, pull down on the column so that the horizontal studs are at the top of the newly slotted holes. Tighten the nuts securely.
6. Check that the steering shaft boot at the firewall is in its proper location.
7. Reconnect the positive then negative battery cables.